

THE ZOOLOGIST

No. 737.—November, 1902.

NOTES ON THE BIRDS OF ANGLESEA.

By T. A. COWARD and CHARLES OLDHAM.

THE Menai Straits, separating Anglesea from the mainland, are so narrow that they alone would not account for any difference in the avifauna of the island from that of the adjacent portions of North Wales; but the character of the country is entirely different from that of Carnarvonshire. The rugged mountains of the Snowdon Range, with their narrow glacial valleys and ice-scooped and volcanic tarns, are replaced by low-lying undulating country, under cultivation of a primitive sort, interspersed with gorse-covered commons, extensive marshes, and shallow reed-fringed pools. With the exception of the isolated Holyhead Mountain, the high land is all to the north-east, from whence the country gently slopes towards the western shores, where the few insignificant sluggish rivers debouch in sandy estuaries.

Anglesea is singularly treeless, and the clumps of trees—mostly ash—which here and there have been planted round the more pretentious houses, bear evidence, in their gnarled trunks and matted branches, of the fierce salt-laden winds that sweep across the island. The sheltered shores of the Menai Straits, however, are well wooded; from Beaumaris to Llanidan are extensive plantations, giving shelter to Warblers and other

woodland birds, rare or unknown in the greater part of the county.

In this paper we have dealt only with the birds observed during short visits in the spring of 1902 to the district lying south-east of a line drawn from Redwharf Bay, through Pen-traeth, along the Cefni valley to Malldraeth Bay. Later we hope to treat of other portions of the island, comparing the different faunal areas.

From the shrubberies and plantations in the park at Baron Hill, behind Beaumaris, a thin belt of deciduous trees—beech, ash, oak, and sycamore—fringing the road, extends to the confines of Plas Newydd. Here a well-timbered park, half a mile to a mile in width, lies along the shores to Llanedwen, where for two miles the country is sparsely wooded as far as Llanidan. No one visiting these woods in April and May can fail to be struck, as we were, with the abundance of the Chiffchaff, which far outnumbers any other Warbler. Mingled with the rhythmic notes of this bird were the "long, tender, delicious warble" of the Willow-Wren, and the shivering trill of the Wood-Wren.

Of the Leaf-warblers, the Chiffchaff was undoubtedly the most numerous; though all were abundant, not only in the continuous woodlands between Baron Hill and Plas Newydd, but in isolated Pheasant-coverts further inland. In the woods, too, the Black-cap and Goldcrest were very common, but we only met with the Garden Warbler in one spot—near Llanfair P.G., where we watched a male singing in a thicket on several occasions. The Spotted Flycatcher was abundant, but we failed to find the Pied Flycatcher, which is so common in the Conway Valley at Bettws-y-Coed. The Redstart, in a district apparently admirably suited to its habits, was very rare; we only saw a single bird—between Garth Ferry and Beaumaris. We did not see the hen, but, as we often heard the male singing at this spot, we concluded that she was sitting.

Throughout the whole district the Wood-Pigeon was abundant, being by no means confined to the woodlands. At Plas Newydd, in mid-May, small parties of birds flew at our approach from the beeches with clattering wings. They had been gorging themselves in the tree-tops, and the ground beneath the trees



was strewn with broken twigs and torn leaves and catkins that the birds had dropped in their orgie.

Of the Tits, the Blue was undoubtedly the most abundant, though the Great Tit was by no means rare. We saw Coal-Tits feeding young in three different places, but the bird was not common, and we did not meet with either the Marsh or the Long-tailed Tit. The Creeper has the reputation of being a shy singer, and when the trees are in leaf is easily overlooked; but, from the number of times on which we heard the song in many different localities, the bird must be very plentiful. The Tree-Pipit, like the Redstart, was unaccountably rare; we saw a pair in a wood at Holland Arms, heard three or four in song between Llanfair and Menai, and one at Llangoed, but none elsewhere. The Chaffinch and Greenfinch swarmed in the woods and in the cultivated district beyond; the Bullfinch was fairly numerous, but we only met with the Goldfinch in one locality—near Menai Bridge, where a pair frequented an orchard. In this part of Anglesea the Jay and Magpie, if they occur at all, must be very rare, for we did not meet with either species.

The neighbourhood of the old Priory at Penmon, in the extreme east of the island, proved to be an exceedingly interesting district. Just behind the ruins of the Priory is a little dell, where many ancient ashes, alders, thorns, and elders, together with the Spanish chestnuts and walnuts in the Priory grounds, provide shelter for numerous birds. In the tree-tops was a small colony of Rooks, while the hollow limbs of the older trees were tenanted by Jackdaws and Tawny Owls. In mid-May the latter bird was much in evidence, enlivening the night with its musical call; but during a second visit—in the first week of June—it was silent. We did not come across the Tawny Owl elsewhere, nor did we personally observe the Barn-Owl, but a quarryman at Penmon had a stuffed example which had been captured in a disused boiler a few months before. The Green Woodpecker, which we only met with sparingly in the larger woods, was astoundingly abundant in the neighbourhood of Penmon. The rotten timber of the old trees was riddled with nesting-holes, and even the smaller branches were pitted with the bird's borings. The Woodpeckers were not restricted to this isolated clump of trees where they nested; we used frequently to

come across them on the bare bracken-covered limestone uplands which constitute the Deer Park, where they were no doubt feeding on the ants which swarmed beneath the stones. It was strange to continually hear the laughing cry of the bird in a district so dissimilar from the well-timbered park-land which we usually associate with the species in Cheshire.

The hollow trees in the dell provide accommodation for a large colony of Tree-Sparrows—a bird whose distribution in Wales is but little known. Many pairs, too, were nesting in the walnuts and ashes in the Priory grounds, and we noted a single isolated pair in a hedgerow sycamore near the schoolhouse at Penmon. On June 3rd and 4th we saw several birds carrying nesting materials into holes, presumably preparing for a second brood. House-Sparrows were often nesting in the same trees as the smaller species, and in two cases at least their untidy structures were visible in the loose foundations of nests in the rookery. The pushful Starling was, as might be expected, abundant. At Penmon birds were feeding young in the old Woodpeckers' holes; while in old walls, cottage roofs, the limestone cliffs, and trees in the woods, every likely hole was occupied by Starlings. During the first week in June numbers of birds were still busily feeding young in the nest, but many others had packed, and flocks of two to three hundred individuals were roosting in the old thorns in Penmon Park.

Several pairs of Spotted Flycatchers and Creepers were nesting in the dell, and Wood-Wrens, Whitethroats, Blackcaps, Willow-Wrens, and Bullfinches in the undergrowth. The Wren, of course, was common here; we found a nest in an unusual situation—suspended at the extremity of a drooping branch of elder, concealed by the surrounding leaves.

At midday on June 1st, when one of us was sitting beneath the trees, a male Siskin alighted in the lower branches of an ash, not fifteen paces away. Its forked tail, greenish plumage, grey-striped flanks, and black crown, forehead, and throat showed clearly in the strong sunlight. Subsequently we both searched for the bird on many occasions, but without success.

The stream that trickles through the dell is dammed, forming a little tree-sheltered pool, where a pair of Moorhens had a brood, and where at dusk the Pipistrelles hawked for flies,

replacing the Swallows and House-Martins that fed by day, as, above the trees, the Noctules replaced the Swifts. At this pool, one day, we watched a Robin take insects repeatedly from the surface of the water. In its flight from bough to bough it checked its course, hovering for an instant as it seized its food; not taking its prey "in its stride," as a Swallow or Flycatcher does.

On June 3rd a pair of Creepers were feeding fully-fledged young (they left the nest on the following day) in a nest between the thick stem of an old ivy and the park-wall at Penmon. In nineteen minutes the parent birds made thirty visits, bringing green caterpillars and some black insects we could not identify from the neighbouring thorns.

Save for the trees near the Priory, and a few old gnarled thorns, the low limestone hills of the Penmon promontory are treeless; several hundred acres are enclosed within high stone walls. The turf is cropped by innumerable Rabbits, whose burrows honeycomb the ground, providing nesting-holes for many Wheat-ears, and a few pairs of Stock-Doves and Sheld-Ducks. In the bracken, which covers many acres, a fair number of Nightjars crouched during the day; and Lapwings, though common in the open country everywhere, were nowhere so abundant as here. There were several pairs of Meadow-Pipits near the Point, and along the cliffs from Penmon to Redwharf Bay; but the bird is not generally distributed. The Sky-Lark, on the other hand, was common everywhere.

At the lowest part of the park is a shallow pool, which, sheltered by a high wall from the road that skirts the beach, affords a secluded retreat for Curlews and Ringed Plovers at high water. Indeed, one or two pairs of the latter bird had forsaken the adjacent shingle, and were nesting on the rush-grown turf by the pool-side. A male Sheld-Duck constantly frequented the water, where at times he was joined by his mate, who was brooding in a Rabbit-burrow on the limestone bank two hundred feet above, and a quarter of a mile inland. On the evening of June 5th, as we were walking across the high land in the Deer Park, we saw a small bird swimming on this pool. When we approached nearer we found that it was a Red-necked Phalarope, and though, in the pouring rain and fading light, it was impossible to dis-

tinguish its colours, its buoyant pose upon the water left no doubt in our minds of its identity. Early next morning we were at the pool, and found the little wanderer swimming within a few yards of the bank. Although we approached it quite openly, the bird made no effort to elude us; in fact, it hardly seemed to notice our presence. So lightly did the bird rest upon the water that it looked as if a breath of wind would pick it up and blow it away; yet, though it generally swam head to wind against a stiff breeze, it appeared to experience no inconvenience when swimming in the opposite direction. The bird was busily feeding—dipping its beak constantly in the water, and now and then uttering a soft “peep peep.” After we had watched the Phalarope for some time, as it swam with a zigzag course but a few feet from us, we threw a stone into the water near it, for we wished to see it on the wing. The bird rose, hovered for a second a few inches above the water, and then flew off over the grass, somewhat resembling a Ringed Plover in its flight, and distinctly showing its white wing-bars. It was back again in a minute, and recommenced feeding. During the day we visited the pool several times, but we never succeeded in inducing it to fly again; when disturbed by a splash it simply rose and hovered for a moment, dropping again a yard or so further on. At night-fall the bird was still there, but it had gone by the following morning.

It was an adult female; the rich fox-red of the neck contrasting sharply with the pure white chin and under parts and the dark grey of the upper breast. The clearly defined white spot immediately above the eye was distinctly noticeable at a distance of some yards.*

Between Penmon Point and Redwharf Bay the limestone cliffs rise to a considerable height, affording nesting ledges, in places, for many rock-haunting birds. At one spot there was a

* This spot appears to have escaped the notice of many ornithologists, whose descriptions have been compiled from the examination of dried skins. The spot is not shown in the figures of the bird in Dresser's ‘Birds of Europe,’ and Lilford's ‘Coloured Figures of the Birds of the British Islands,’ although it is undoubtedly present in the skins from which the figures were drawn. We have examined these skins in the Dresser Collection at Owens College, Manchester, and found that, owing to the contraction of the skin over the orbit, the spot is practically obliterated in dried specimens.

small colony of Guillemots and Razorbills, the species being in almost equal numbers; in another place a few Razorbills were breeding in horizontal fissures, but we failed to detect any Guillemots there. The Herring-Gull was the dominant Gull in this district; mature and immature birds were common in the Straits, where the only other member of the family that we observed was the Black-headed Gull. Some of the colonies of Herring-Gulls on the cliffs numbered hundreds of pairs, and in one place there was a fair admixture of Lesser Black-backed Gulls. We saw many Cormorants fishing in the Straits and on the inland lakes, and along the coast birds were constantly passing between their feeding-grounds and a precipitous cliff where a large number were nesting.

Of birds of prey, we noticed several nesting Kestrels, and one or two Merlins; and at one spot a pair of Peregrines had their eyrie. Whenever we passed the place the falcon, and sometimes the tiercel, flew out, wheeling in circles above the sea, barking fiercely "hek hek hek." Again and again the falcon would stoop, as if in sport, at the Herring-Gulls which were passing along the cliff to their nesting-places, sweeping up again just before she reached them. The Gulls always swerved a little from their course when the falcon was all but on them, uttering a short single frightened scream. A Kestrel, on the other hand, which was nesting in a disused Carrion-Crow's nest, several times hovered over and stooped at the Peregrine, which merely swerved aside and made no attempt to retaliate. The Kestrel was not uncommon inland, but we only met with the Sparrow-Hawk once—at Gaerwen, where a male was gibbeted in a keeper's museum, along with a couple of Stoats and eighteen Weasels.

There were several large colonies of Jackdaws along these cliffs, and a few pairs of Carrion-Crows were scattered here and there. At one place we came upon a pair of Ravens in attendance on a brood of young which had not long left the nest. As at Penmon, the Meadow-Pipit was not uncommon, and the Rock-Pipit was feeding young in many places early in June. The tangle-covered *débris* at the foot of the cliffs provided a feeding-ground at low-water for many Oystercatchers and a few Sheld-Ducks. It was evident from their excited behaviour that some

of the Oystercatchers had young along the edge of the crags. On the sand at Redwharf Bay were a number of Sheld-Ducks, which were breeding in an adjacent warren; here, too, on the shingle were a few pairs of Ringed Plovers, a species which was nesting in several places on the low-lying coast between Penmon and Beaumaris.

At one place on the cliffs the Swift, which was distributed throughout the district, was nesting in some numbers; and at the same spot a colony of about thirty pairs of House-Martins had their nests on the precipitous limestone rock-face. The House-Martin, unlike the Swallow, was by no means common; indeed, we did not meet with any in that part of the district south-west of Menai Bridge. The Sand-Martin, too, was not plentiful, but a few pairs were nesting in the low marl-cliffs between Penmon and Beaumaris.

Half a mile north-east of Penmon Point lies Priestholm, or Puffin, an island, rising some two hundred feet above the sea, bounded by rugged limestone cliffs. "On this island," according to Willughby, "build the *Anates Arcticæ* of Clusius (here called Puffins), Razorbills, Guilliams, Cormorants, and divers sorts of Gulls." On June 6th we visited the island, where we found the "divers sorts" to be three species—Herring and Lesser Black-backed Gulls and Kittiwakes. Herring-Gulls, abundant on the cliffs of the mainland, swarmed here; the colonies practically extending round the island. Most of the birds were feeding downy young—some of them well-grown—but hundreds of nests still contained eggs. The clamour of thousands of voices, and the sight of the cloud of white birds above the blue water was most impressive. On the seaward or northern side of the island there were a few scattered pairs of Lesser Black-backed Gulls amongst the Herring-Gulls, but at the southern extremity they were massed in a large colony, and at this place far outnumbered the other species. Pennant was acquainted with the Lesser Black-backed Gull, for in his '*Zoologia Britannica*' (4th edit. 1776-77) he accurately described the bird, which he met with in Anglesea, in his article on the Great Black-backed Gull, although he was undecided whether it was a distinct species or merely a variety of the larger bird. It does not appear, however, to be common during the breeding season in North Wales, and Mr.

O. V. Aplin, to whom we are indebted for calling our attention to Pennant's description, has not so far found it nesting on the coast of Lleyln.

The Kittiwakes were restricted to a short stretch of low precipitous cliffs on the northern side, where they had availed themselves of the slightest projections on which to place their apparently inadequate nests. In addition to the small colony on the island, a few pairs were nesting at one spot on the adjacent mainland. Though there were many Cormorants standing with outspread wings on the rocks, none appear to nest now on Puffin; nor did we see Shags here, or, indeed, in any other part of the district. Except on the seaward side, the cliffs are hardly steep enough for Guillemots or Razorbills, but a fair number of each were breeding in proximity to the Kittiwakes.

The thrift-covered turf slope above the cliffs on the western side is honeycombed with the burrows of Puffins, but the colony cannot compare in size with others which we have visited on the coast of Wales. The birds were brooding in their holes, and at every few steps, as we crossed the turf, one would bustle out, fly down the slope, just clear of the ground, and drop diagonally to the water. The Puffin appears to have formerly resorted to the island in much greater numbers, for Bingley ('A Tour through North Wales,' 1800) says:—"I had a sight of upwards of Fifty Acres of Land literally covered with Puffins, and my Calculation is much within Compass, when I declare that the Numbers here, must have been more than Fifty Thousand."

It is asserted that the Puffins were at one time almost, if not entirely, driven away by the Rats, which had taken refuge on the island from the wreck of a Prussian vessel in 1816 or 1817. Bell ('British Quadrupeds,' 2nd edit. p. 313), referring to this occurrence, says that not only were the Puffins evicted, but the vast numbers of Rabbits with which the island was stocked were destroyed by the Rats, which soon overran the place. The birds certainly do not now resort to the island in anything like the numbers mentioned by Bingley, and it is possible that they suffered from the increase of the Rats, but it is doubtful if they were ever entirely banished. The old sexton at Penmon assured us that, when he was a boy, his father used to visit the island in July for the purpose of collecting the nestling Puffins, of which

he used to gather as many as fifteen dozen in a morning. These were pickled, packed in small barrels, and sent into England, where they commanded a ready sale; but the practice had been discontinued for about sixty years. According to the old man's statement, it would appear that the young birds were taken regularly for at least twenty years after the wreck of what he called "the Rooshian barque," the particulars of which disaster had often been related to him by his parents.

The custom of farming the young Puffins is evidently an ancient one; it is alluded to by Edward Pugh (*'Cambria Depicta,'* 1816). In his description of Puffin Island, he says:—"I was a little surprised to find so desolate a place, extending three-fourths of a mile, and literally half covered with those indolent birds called puffins. . . . We walked to the extremity of the island, the boatman frequently shoving his arm up to the shoulder in the burrows, and bringing out the young puffins, to examine whether they were ripe, or fit to take." The island was "farmed" by the Bulkelys "to this man, and one or two others, who take the young birds when not yet able to fly, pickle, and put them in barrels of 12 inches long; then they are sold at about three or four shillings per barrel, sent to different parts of England, and are considered a great luxury."

A few demonstrative Oystercatchers, and a pair of Lapwings evidently had young on the island, and Rock-Pipits were nesting in several places on the cliffs. The Sheld-Duck is usually associated in one's mind with warrens, marshes, and coast sand-hills, and we were rather surprised to flush a party of sixteen adults from the top of the cliff, between 100 and 150 ft. above the sea, and to find at this spot that the birds were nesting. In one Rabbit-hole we found eight fresh eggs on a nest of light grey down, within arm's reach, and pieces of down at the mouths of other burrows showed that there were more nests in close proximity.

We saw a pair of Carrion-Crows, and on the Puffin ground a Lesser Black-backed Gull repeatedly swooped at a young Crow which cowered amongst the pink thrift. There is hardly any cover for hedge-building birds, but Blackbirds, Thrushes, and Hedge-Sparrows were feeding young in a small patch of brambles, stunted elders, and thorns on the lee-side

of the island. The other species we noticed—Starling, Wheatear, Sky-Lark, and Meadow-Pipit—were all abundant on the adjacent mainland.

Away from the coast, on the gorse-covered commons, and where the outcrops of metamorphic rock defy the efforts and primitive methods of the Anglesea agriculturist, the Linnet and Stonechat were dominant birds. On Mynydd Llwydiarth, a rough hilly country overlooking Redwharf Bay, we noticed one or two pairs of Whinchats, a species which we only saw in one other locality. Snipe were drumming on these hills, and we met with others near Llangoed. The Nightjar, which was also here, appears to be a common species in Anglesea.

Many of the small stony pasture-fields are bounded by low bramble-grown turf walls, which provide abundant cover for Whitethroats, Blackbirds, and Yellowhammers. Here the Corn-Bunting, perched on the highest spray, uttered his grating but not unpleasing song; this bird, however, was by no means generally distributed, being nothing like so plentiful as in the north and west of Anglesea. The Snow-Bunting is probably not infrequent on the coast in hard weather; we saw a bird at Penmon which had been killed against the telegraph-wires in January, 1902. Throughout the inland district, as well as on the coast, the Cuckoo was fairly plentiful. We may here mention that on Nov. 10th, 1899, a female Yellow-billed Cuckoo was found dead on the shores of the Menai Straits at Craig-y-don, near Garth Ferry, during a westerly gale (Geo. Dickinson, 'Ibis,' January, 1900, p. 219).

We saw a good number of Mistle-Thrushes in the fields and about the smaller plantations, and near Penmon we picked up the shrivelled bodies of two Redwings. The old thorns in the Park had probably proved an attraction to this species in the hard weather in the previous February. Although we kept a constant look-out, we failed to meet with the Yellow Wagtail. The Pied was not uncommon, and the Grey was nesting in two places; a pair were feeding their young in the bed of a stream at Plas Newydd Park-gates on May 21st, and we several times saw another pair in a little dell between Menai and Garth Ferry. The twitter and trill of the Redpoll in flight attracted our attention everywhere; the bird was exceedingly abundant, not only

in the wooded belt near the Straits, but along the hedges, and on gorse-covered hill-sides and commons.

Pheasants are hand-reared in many places, and the Partridge, owing to preservation, is not uncommon. The Landrail we found exceedingly abundant; in May and June birds were incessantly craking in almost every field. Both Coots and Moorhens were nesting in some numbers in the llyns near Beaumaris, and the latter on brooks and small ponds in many places. The Coot was specially abundant on Llyn Bodgolched, a fair-sized pool, much choked with rushes and buckbean. Here were also a pair of Redshanks, several Mallards, and a few Reed-Buntings. The last-named bird appears to be very local in Eastern Anglesea.

The nature of the country in the southern part of the district is very different from the high land on the north-east coast. Here the Rivers Cefni and Braint enter Carnarvon Bay after they have flowed through low-lying marshy valleys separated by a low ridge of cultivated land which terminates in Newborough Warren, a great waste of sand-hills extending two miles back from the shore, and with a sea-frontage of nearly four miles. From just below Llangefni to Maldraeth Yard, a distance of some five miles, the Cefni flows between artificial banks which prevent the valley from being inundated by the tide. The reclaimed land is, however, in many places impassable swamp, while even the best pastures are thickly grown with rushes. The lush meadows are divided by deep muddy ditches, and in places by dense untrimmed whitethorn hedges, which, when we visited the marshes, were full of noisy Whitethroats.

On May 21st the hedgerows and the beds of rank herbage in swampy places were ringing with the songs of Sedge-Warblers. We had not noticed this bird in the wooded country between Beaumaris and Llanidan, and it was by no means common elsewhere. At noon, in bright sunshine, a Grasshopper-Warbler was reeling from the top of a low thorn-hedge; it allowed us to approach within a few yards, and we were able to see that during the snatches of song its widely gaping mandibles were never closed. When the bird flitted along the hedge its rounded tail was very noticeable. When we passed the spot some three hours later the bird was still singing. Like the Sedge-Warbler,

the Reed-Bunting, though rare elsewhere, swarmed in these marshes ; and here also we saw one or two Whinchats.

At one place on the marshes—near the site of some old colliery workings—are two or three fair-sized shallow pools, fringed with extensive beds of rushes and a few patches of reed. A Cormorant was fishing in the open water, a Heron in the shallows, and on an old spoil-bank, by the margin of the pools, a solitary Whimbrel was feeding. Swifts and Sand-Martins were hawking above the water, whose surface was dotted with Coots and Moorhens. Many of the Coots were attended by young, and one nest, in a patch of rushes, contained a young bird and some unhatched eggs. The little creature, which was actively scrambling about in the nest, constantly uttered a querulous wheezing pipe. Its whitish beak, brilliant scarlet forehead, shading into orange on the sides of the head, and vivid blue crown, together with its hairy black down, rendered it strikingly different from an adult bird. A female Mallard with downy young took refuge in the reeds as we approached, and a pair of Teal rose from the water ; on another pool we saw a second Teal drake. On the marsh contiguous to the pools about a hundred Mallards, mostly drakes, were resting ; some standing, others lying on the short turf. With them was a pair of Shovelers, the white on the neck and back and the chestnut breast of the drake making it conspicuous amongst the darker-plumaged Mallards. When the birds rose, the Shovelers flew apart, their low “tuk tuk” sounding very different from the noisy “quack” of the commoner species as they passed over.

Newborough Warren, a desolate waste of blown sand, whose unstable dunes are but partially held in place by the roots of maram-grass and dwarf willow-scrub, provides, in its innumerable Rabbit-burrows, nesting-holes for Wheatears, Stock-Doves, Starlings, and Sheld-Ducks. In the hollows between the dunes, where after heavy rain the water lodges and where butterwort and other marsh-plants abound, the Snipe and Lapwing were nesting. On the edge of the Warren, a little llyn, pink at one end with the flowers of buckbean, was inhabited by several pairs of Coots and Moorhens ; and on its sandy margin we saw a pair of Sandpipers. We only observed this bird elsewhere, on the Cefni, in Malldraeth Marsh, and on the shore of the Straits near

Menai Bridge. On May 19th, when we first visited this pool, we found the floating nest of a Dabchick moored in a bed of *Equisetum*; and, on removing the sodden covering of weed, we found five eggs, four belonging to the legitimate owner, and one being that of a Moorhen. The only other spot where we met with the Dabchick was on Llyn Llwydiarth, where we saw a pair on June 9th.

At dusk we heard the churring of the Nightjar in many parts of the sand-hills. In one place we saw a pair of Merlins which were evidently nesting; we were also shown eggs which had been taken from a nest in the maram-grass more than two miles from this spot. A colony of about forty pairs of Common Terns had their nests on the summits of the sand-hills near Aber Menai Point, and a few pairs of Lesser Terns had eggs in the shingle in the same locality, and on the sands of the Malldraeth Estuary. On June 12th, when we were near the colony of Common Terns, two Great Black-backed Gulls passed over; they were hotly pursued by the Terns, as were the Herring-Gulls which drifted by from time to time. When the big Gulls pitched on the sand we could see that one was an adult, and the other not fully mature, having the back lighter, and the tail tipped with black. On this day we found eggs of the Oystercatcher and Ringed Plover near Aber Menai. Both species were plentiful along the beach, the former often in flocks; the previous day we saw between fifty and sixty on the saltings near Malldraeth. Black-headed Gulls were abundant in the upper part of the estuary.

During May and June the majority of the Curlews are on their breeding-grounds, but we saw a few in the Straits, and on the Malldraeth Estuary. The Whimbrel, however, is more in evidence at this time; we saw the bird near Beaumaris, in the Straits below the Bridges, and in Malldraeth Estuary. On May 18th we watched a party of twelve at low water on the shore below Llanidan. Their characteristic cry, uttered especially on the wing, first drew our attention to the birds, which were feeding on the exposed banks, or wading belly-deep in the pools. In the strong sunlight the light stripe on the crown was very conspicuous when the birds lowered their heads to feed.

Malldraeth Estuary at low water is a broad expanse of sand, with many shallow lagoons, separated from the Warren by an

extensive salt-marsh, which is resorted to by large numbers of Sheld-Ducks. On May 19th, when walking along the shore, we saw several odd birds and pairs, and on reaching the saltings we were delighted to find no fewer than sixty-one Sheld-Ducks sitting or standing amongst the rushes. In striking contrast to a pair of yelping Redshanks, the Sheld-Ducks were surprisingly tame, often allowing us to approach within a few yards ; and even when they flew, they merely moved as far as a lagoon at the edge of the marsh, where they waded and fed in the shallow water. Near Malldraeth Yard, where the high road skirts a big tidal pool, the Sheld-Ducks, unlike the Herons which were feeding in the pool, paid but little attention to passers-by. Many domestic Ducks were feeding here, but the wild birds would allow no encroachment upon the spot where they happened to be feeding, driving the domestic birds away. The Sheld-Ducks often rose from the marsh in pairs, the duck, on the wing, being noticeably smaller than the drake.

When we visited the district later—on June 12th and 13th—we found about the same number of birds on the saltings ; and in several places on the sand-hills we saw the footprints of old and young leading down to the shore. Near Aber Menai Point we came suddenly on a pair with eight small young ones, which were paddling at the edge of the tide. Both old birds at once squattered along the water like a Mallard duck, while the young rushed into the waves, paddling out to sea in a different direction from that taken by their parents. The male desisted first from these alluring tactics, and presently both birds swam out and joined the young, which were by then some distance from the shore.

Other birds with young broods were swimming at sea, and on the marsh we came across a family which scuttered through the rushes before us. One of these which we captured—a bird about a third grown—was clothed in greyish-white down, with a broad brown band from the forehead to the tail, crossed on the shoulders by a band extending to the tips of the wings, and by another, in the pelvic region, which extended to the thighs. The bill was lead-blue, with a small whitish nail, and the legs and feet lead-blue, tinged with olive-green.

THE BIRDS OF SARK; AND VARIATION IN SONG.

BY H. E. HOWARD.

I arrived at Sark on March 1st, having sailed across from Guernsey, a distance of about eight miles. Owing to the state of the tide and wind, the landing had to be made at the port of Havre Goslin, which landing-place consists of an iron ladder fixed on the cliffs, perpendicular for some distance, with a fairly steep climb at the end of it. The island is three and a half miles long by one and a half broad, and is encompassed with vertical cliffs two or three hundred feet high. Part of the land is cultivated, and part kept for grazing. The chief feature, however, is the number of valleys running down to the edge of the cliffs, valleys, which, for the most part, are covered with whins, and which account for the great number of stone-chats to be found there.

I was too early to see if the island was visited much by migrants, but I noticed one or two movements. On the 4th, flocks of Green Plover were passing the south end of the island, heading towards the east; the weather was fine at the time, with sea fogs in the morning. On the 11th, while walking near the cliffs facing south, I was attracted by a quiet note, very much like that of a Goldcrest, but sufficiently distinct to arrest attention. After waiting for a short time, the bird appeared out of a dense mass of bramble, and I had the pleasure of recognising a Fire-crest (*Regulus ignicapillus*). I watched this bird at different times for two days, often within a few feet—never more than twenty-five yards away. The plumage was beautiful, evidently full breeding, the golden hue on the nape and sides being especially bright. The weather had been fine and warm with sea fogs in the morning, and a slight wind from W.S.W. On the 12th, a single Wheatear appeared, and also on the same date I flushed a Woodcock amongst the gorse on the east cliffs. The number of Stonechats kept increasing daily; I noticed no old males among them. On the 12th, also, the Kittiwakes were

round their breeding haunts; on the 13th, Razorbills appeared, and on the 17th Guillemots.

I was again struck by the excessive variation in the notes and songs of certain species as compared with my own county—Worcestershire. This variation I have previously alluded to in these pages. I thought, however, it would be as well to endeavour if possible to determine wherein the exact difference lay—whether in the pitch or arrangement of the song, or both. This was difficult, as to achieve such a result it was necessary to carry in one's mind the exact representation of the song as sung elsewhere. I found that the arrangement of the song—by arrangement I mean the order in which the various trills and single notes are placed, for it will be noticed that the song of most birds is composed of various little “snatches,” each one of which practically constitutes a song in itself—differed to a great extent from the same song in Worcestershire, and when first heard appeared to differ *in toto*. I will take two examples, and by comparing the arrangement of the song of these two examples as sung in Worcestershire and Sark, will endeavour to point out the difference as it appeared to me. The two examples are the Great Tit and the Wren, and I take these because in them the variations were most striking, and, therefore, more easily defined.

The song of the Great Tit in Worcestershire consists, as a rule, of two notes, the one uttered last a full note higher than the first. In Sark it was very different, the first note often being uttered three, four, or more times, and the last note once; occasionally the first note was uttered alone, repeatedly, for some time.

The song of the Wren in Sark differed from other Wrens more than the preceding example differs from its respective species, and is more difficult to explain. The song is shorter, and certain parts usually found in the song of the Wren are altogether absent.

The whole subject of bird song is one of which we are profoundly ignorant. How few of those who profess to be ornithologists are able to distinguish different notes! One would think that what is known as a “good ear” is a *sine qua non*, but this I cannot believe, having frequently noticed that those who

are musical are unable to distinguish different songs as readily as those who are not. I feel convinced that it is one of those things which is possible for anyone to learn with patience and close observation. We notice the same ignorance with regard to the appreciation of the beauty in the form of a bird. But can we wonder at this when even artists, whose powers one would think were altogether trained to appreciate that which is beautiful in form of every description, fail to appreciate that which is beautiful in a bird? That one has to be educated to beauty we know; but the same beauty of form, which for generations has been worshipped in the perfect human body, is to be found amongst all creatures in nature by those who seek for it. And yet I feel tempted to say that a naturalist without these two gifts—namely, the understanding of their language, and the appreciation of their form, which undoubtedly they understand amongst themselves as readily as their language—cannot be called a naturalist in the highest sense of the word. But I am digressing.

What are the causes of this variation of song? Is it due to some cause local or temporary, or does it depend on some general law which governs the whole animal kingdom? We naturally turn our thoughts to the human language and the human voice, and it appears to me that we have here somewhat of an analogous case. It is, I think, an admitted fact that dialect is due to climatic influence, and, again, that a damp or wet climate has the effect of relaxing the vocal chords, and thereby lowering the pitch. Does this apply to birds? Dialect perhaps expresses this variation better than arrangement. I noticed in Sark that the song and call notes of certain species were uniformly lower than in the county of Worcestershire. Among the most striking were the call notes of the Blackbird and Chaffinch, and the songs of the Great Tit and Wren. This phenomenon I had previously noticed in the west of Donegal, and having occasion to be there shortly afterwards, I made special observations on this point, and found the same thing in the Blackbird, Chaffinch, and Wren; and in addition amongst the following species: Corn-Bunting, Yellow Bunting, Sedge-Warbler, Whitethroat, Swallow, Blue Tit, and Coal-Tit. It has always been late in July when I have been there, otherwise I have no doubt I should have found it to be the general rule amongst many classes of birds.

I may here say that by the word "call notes," I refer to every note belonging to a species that is not actually the song, although they are not by any means in a number of cases call notes in a literal sense. The climate in Sark and in the west of Donegal are much the same. The rainfall of both is above the average; both are subject to bad sea fogs from the Atlantic, and are therefore very damp. On the other hand, the climate of Worcestershire is peculiarly dry, the rainfall being much below the average. Looking, then, at this fact, that a lower pitch corresponds with a damp climate, and a higher pitch with a dry climate, I think I am justified in coming to the conclusion that climate exercises a certain influence on the pitch of the notes and songs of certain species.

The dialectical variation is more difficult to explain, and my observations up to the present time are, comparatively speaking, so small, that perhaps I am hardly justified in forming any definite conclusion. The great difficulty in any researches on this point appears to be this—that all observations must be carried out by the same person; and to compare, except on general lines, with anyone making similar investigations is almost a practical impossibility. At first I was inclined to think that the song was more highly developed, or the reverse, in certain districts than in others, and that as a result of there being a scarcity of one sex or the other, sexual selection might exercise considerable influence in this direction; but on finding, after making further investigation, that migratory species were subject to this change, any theory with regard to sexual selection acting in this manner becomes impossible, and we must, therefore, look to some other cause for an explanation. I found that the song of the Whitethroat on the shores of Loch Lomond differed very much from anything I had previously or since heard. Again I noticed the same change in the call note of the Chaffinch in Inverness; and I now feel convinced that there are as many dialects amongst certain species as there are amongst human beings. I am inclined to think that the explanation will again be found in climatic influence, and that these dialects are in a great measure due to the lowering of the pitch. Take, for instance, the song of the Wren in a damp climate. When listened to very carefully, it will be found that the parts that

are absent, as compared with a dry climate, are those where the high notes are introduced. I do not mean that the song is not as beautiful; for I have listened to Wrens in Donegal singing quietly, whose notes, certainly not many, for fulness and richness of tone, were equal to the finest notes of the Blackcap. The same phenomenon applies to the song of the Whitethroat.

Different species appear to be subject to this climatic influence in different degrees of intensity. For instance, the variation to be found in the song of the Buntings is very small; I found great difficulty in detecting any variation at all in the song of the Yellow Bunting. The same thing applies to the song of the Tits, the Coal Tit having the least variation. On the other hand, the variation in the song of the Warblers—Wren and Blackbird—is most marked, that in the Whitethroat and Sedge-Warbler being very striking.

These facts seem to point to the variation being proportionate to the development that has taken place in the song of a given species, and I think it can be readily understood that the most highly developed, and, therefore, most sensitive, musical instrument would most probably be subject to this climatic influence in the greatest degree.

There is another phase of bird song which might be confused with this dialectical change, namely, the song of the immature males. The males of probably all species do not get their full song for some years, in the same way that they do not really get their full plumage—I think it very probable that the two correspond; but this song of the immature males differs rather in the direction of fulness and richness of tone than in any actual change of the song, and is very easily distinguished from this dialectical change.

My observations in a damp climate have always been made either in March or July. I think that a close study of the migratory species on their arrival in this country would, by settling certain difficulties, throw some light on the whole question. Is this change to be found immediately on their arrival, or does it increase as the season advances? Is it permanent, or only temporary? The difficulty, as I mentioned previously, is that it is impossible to compare notes with anyone making similar observations, and it is also obvious that it is

quite impossible, where so many dialects probably exist, and where so little is known about any one of them, to fix any standard. I would, therefore, suggest that comparisons should be made under as diverse conditions as possible—that is to say, between very wet and very dry districts, or between districts inland and districts on the coast. If it can be proved that this variation exists among certain migratory species immediately on arrival in this country, it will be necessary to follow them into their winter quarters. For, supposing a dialect is inherent in any one given species (which at first seems almost incredible), we should expect to see some signs of it in their said winter quarters. On the other hand, if we follow them and again find new dialects and new gradations of tone, or if we find on their arrival in this country that there is no immediate variation, but that it increases as the season advances, we shall have strong evidence that in some measure at least it is directly due to climatic influence.

I have shown that so many and such distinct variations do exist, and it seems only reasonable to expect that some of these variations, *amongst those species which are resident*, will become hereditarily attached to the male sex—for if they did not it would be subversive of the theory of sexual selection, a theory which must be admitted by all those who have studied certain species, in whom the vocal powers are excessively developed while courting—consequently species with a certain variety of song will exist in a small body and often breed together, and as a result the development from a dialect to specific song must in time ensue. It may be argued that it is impossible for a variety of song amongst individuals of any one species to have any connection with the origin of song in separate species; but I can see no more difficulty in believing, except to those, if there are any, who still look upon species as immutable, that through the vast ages that have lapsed, during which species have developed, a specific song may have become attached to a certain species through the action of sexual selection on varieties resulting from climatic influence, than I can in believing that species themselves have been evolved.

When we reflect on these variations of song, we can easily understand what mistakes have arisen, and probably will arise,

as a direct result of the same ; on the one hand, species recorded erroneously in certain districts, on the other hand, species overlooked. The call notes and songs must always be the guiding factor to the ornithologist, as by them alone is it possible to recognize new species, and judge the movements of those that are well known. To those who are aware of these variations of song, and who are able to recognize them, there can be very little fear of mistakes ; but to those naturalists who either cannot, or who have not taken the trouble to learn the notes of every species with which they have come into contact, the possibility of mistakes from the above cause must be very great.

The following is a list of all the species that came under my notice during the fortnight I was on the island :—

Turdus viscivorus, *T. musicus*, *T. iliacus*, *T. pilaris*, *T. merula*, *Saxicola œnanthe*, *Pratincola rubicola*, *Erithacus rubecula*, *Regulus cristatus*, *R. ignicapillus*, *Accentor modularis*, *Parus major*, *P. cœruleus*, *Troglodytes parvulus*, *Motacilla lugubris*, *M. melanope*, *Anthus obscurus*, *Ligurinus chloris*, *Passer domesticus*, *Fringilla cœlebs*, *Acanthis cannabina*, *Emberiza miliaria*, *E. citrinella*, *E. cirrus*, *Sturnus vulgaris*, *Pyrrhocorax graculus*, *Pica rustica*, *Corvus monedula*, *C. corax*, *C. corone*, *Alauda arvensis*, *Alcedo ispida*, *Accipiter nisus*, *Falco tinnunculus*, *Phalacrocorax carbo*, *P. graculus*, *Sula bassana*, *Ardea cinerea*, *Querquedula crecca*, *Columba palumbus*, *Charadrius pluvialis*, *Vanellus vulgaris*, *Hæmatopus ostralegus*, *Scolopax rusticula*, *Larus argentatus*, *L. fuscus*, *Rissa tridactyla*, *Alca torda*, *Colymbus arcticus*, *Podiceps griseigena*.

ORNITHOLOGICAL NOTES FROM THE WEST COAST OF SCOTLAND.

By W. H. WORKMAN, M.B.O.U.

FOR many years I have wished to visit the west coast of Scotland in the breeding season, and see the Gulls, &c., with their nests, eggs, and young. Most seasons we have been rather late, but this year we managed to leave Belfast Lough on the 18th of May; and were about the first sailing yacht to go north. It was very cold and wet, much more like the middle of winter than the beginning of summer. On the way up to Oban we had what might have been the bad luck to get drawn into the much-dreaded Gulf of Corrievrechan. It is rather a strange sensation to feel quite helpless, the rudder being useless, as there was no way on the 'Hotspur.' Sometimes we were swept so close to the rocks that one could have thrown a biscuit on shore, then round in a circle and out to the centre, where there is a short, rather heavy swell; but, owing to the calm weather, we had no trouble, and after about an hour we got shot out at the west side. There were a great many Guillemots, Herring and Lesser Black-backed Gulls fishing in the tideway. We have always noticed this in strong tides; the fry must be brought to the surface by the rush of water. At Lismore there are always large flocks of Terns feeding. Our first anchorage was Loch Spelve, in Mull, which we reached on the 23rd. We here found the nests of two Sandpipers (*Totanus hypoleucus*), situate rather high up on banks, and made of moss, ferns, and grass; each nest contained four eggs. We also noticed large numbers of Lapwings (*Vanellus vulgaris*).

On the 26th we landed on a small island in the eastern end of the Sound of Mull, where we found a great number of nests of Lesser Black-backed Gulls (*Larus fuscus*); all contained eggs, it being rather early for young birds. The nests were very roughly made of grass, situate among bracken and long coarse grass. A Duck's nest was also found. We rounded Ardnamurchan without

feeling those—to put it mildly—quieting effects of open water. I was on the look-out for Richardson's Skua (*Stercorarius crepidatus*), for I had seen one off this point in 1900; but this year I was not so fortunate. We anchored on the 30th in the lee of the island in Loch Airlort. Shortly after we let go, I noticed some Sheld-Ducks (*Tadorna cornuta*) flying about, and looking beautiful in the sunlight. On the island we found nests of Herring-Gulls (*Larus argentatus*), which are much neater than those of the Lesser Black-backed Gull. The eggs are about half an inch longer, and much more handsomely marked. On this island there is a very good example of a vitrified fort, showing clearly the bubbles of molten stone.

We reached Glenelg on the 31st, and while walking close to the stony beach came on some Ringed Plover (*Ægialitis hiaticula*) running to and fro, and calling to each other. We watched them for a long time with glasses, and then approached them to see if they had a nest; they came quite close, getting very excited. Suddenly we heard something squeaking close beside us, and we looked about for some time, but could see nothing. At last I noticed a little ball of down among the stones; it was grey on the back, with white tips to the wings, white under parts, and a black strip from the beak to the back of the head. So like was this young Ringed Plover to the stones amongst which it was standing, that whenever I took my eyes off, it was quite difficult to pick up again, although I knew the spot where it ought to be. All the time the old birds were running about whistling, and occasionally one of them would fall over on its breast, spread out the tail, extend the wings, and flap about like a wounded bird; then stretch its wings straight up, as if in the last agonies of death. It would let me approach within three or four yards, then get up and fly away to some other part of the beach. We found some more birds of this species at Gairloch.

On the 4th of June we landed on the Ascrib Islands, west coast of Skye; they were almost covered with Puffins (*Fratercula arctica*), especially round their breeding-places. We walked to the edge of the small cliffs, and found the earth on the top riddled with burrows. Some we opened up were about two or three feet long, with a little heap of grass at the end; on this is laid the one white egg, which soon gets very dirty. The earth-

road up to the nest is kept damp by the wet breast and feet of the bird as it comes from feeding; this earthy paste is carried to the egg, which soon gets a warm brown colour. These birds were very tame, and I got within a few feet of them. Two of our party caught one as it came out of its burrow; they were very sorry afterwards when they found they had caught more than the Puffin. In a small marsh one of the party found the nests of two Eider Ducks (*Somateria mollissima*). One of the birds flew off on approach.

We left Oban on the 11th to again sail north. As we were going through the Sound of Mull we lowered the dingy, and pulled over to an island, where we found nests of a large number of Terns (*Sterna fluvialis*), and I think the Arctic Tern (*S. macrura*) was also present. The eggs were very plainly marked, and there was no attempt at building a nest.

On the 13th we dropped anchor in Knoydart Bay, Loch Nevis, where we found another Sandpiper's nest with four eggs; a little farther on we came to an old Sandpiper with four young ones, which were very hard to distinguish from the ground, being a warm grey on the back, with black stripes; they had long legs, and could run fairly fast, although they must only have been a few days old. A winged Sandpiper will dive and swim like a Duck; so will a wounded Oystercatcher (*Hæmatopus ostralegus*). We saw a Goosander (*Mergus merganser*) swimming about in the bay; it was easily recognized with the glasses, as it came close to the shore.

Balmacarra was our next stopping-place. When passing the keeper's cottage I noticed four large Wild Cats' skins nailed on the kennels, and I immediately went in search of their owner, as I thought there might be a tale connected with them. The keeper told me he trapped seven in 1900, two in 1901, and four this season, but it seems a pity to exterminate such a rare and fast decreasing mammal. As we were talking a large bird flew over some trees; he told me it was a Buzzard (*Buteo vulgaris*), and that these birds breed every year on this estate, along with Merlins (*Falco æsalon*) and other Hawks; but I am sorry to say their nests are destroyed every year. At Gairloch, on the 18th, I had a talk with the keeper of the Flowerdale Estate. He told me that they had Golden Eagles (*Aquila chrysaëtus*), Peregrines (*Falco pere-*

grinus), and Merlins. I am glad to be able to say that the owner does not have them exterminated altogether.

From Gairloch we had a long sail to Loch Inver, which we reached on the 19th in a strong breeze of wind. As we passed one of the islands at the mouth of the loch, half a dozen Wild Geese flew close across the bows. I think they were *Bernicla leucopsis*; at least they were very like a stuffed specimen of this species I had seen in the possession of Mr. Sheal, the taxidermist, at Belfast.

At Loch Broom, which was our next anchorage, I paid a visit to the excise officer, who is somewhat of a naturalist. He showed me some rather interesting birds—a young Sea-Eagle, shot near Loch Broom; a Shearwater, but of what species I am not certain; a Storm-Petrel and egg; also eggs of Black- and Red-throated Diver. He also showed me a Pine Marten, shot near Ullapool, which I believe is another of our fast-disappearing mammals.

On the 25th we lay close to Piper Island, Loch Hourn. We landed, and found a large number of Terns' nests, which were rather different from those in the Sound of Mull, and, being on the rocks, were made, or rather banked up, with stonecrop and seaweed. The eggs were very handsome, being yellowish with large sepia blotches, but perhaps these were eggs of the Arctic Tern. When walking round the shore we found an Oystercatcher's nest with three beautifully marked eggs; it was placed under heather, and made of grass. The usual place is a depression in the shingle a little above high-water mark; at least, that is where I found one near Fort William some years ago. At the mouth of this loch there is a fine cliff called Priest's Rock, where, in 1900, I had the pleasure of seeing a pair of Peregrines flying round and round, uttering their wild screams. This year we sailed close under, and fired a gun, but saw no sign of them. Perhaps they had been shot.

Canna, which we reached the next day, is a most interesting island, being one of the most fertile and prosperous on the west coast. In the evening we landed for a climb to the high part of the island, where the cliffs are sheer down for 700 ft. When we reached the moor on the top of the hill, I noticed some birds running about and whistling to each other. In a few seconds I

had them in focus, and saw they were Golden Plover (*Charadrius pluvialis*) in breeding plumage, which interested me greatly, as it was the first of this species I had seen alive. They went about in pairs, sometimes coming quite close; I think they had young among the grass and heather. We next went to the edge of the cliffs to see the thousands of Puffins that are continually flying backward and forward. It is wonderful looking down from this great height at the never-ceasing stream of bird-life, all seeming to be in a great hurry about something. As we were leaving the northern cliffs I noticed an Eagle circling at a great height above the water; it settled on a rock on the edge of the cliff, and I had a good look at it with the glasses. From the description in Saunders' 'Manual,' and from the stuffed bird I saw at Loch Broom, I think it was a young White-tailed Eagle (*Haliaëtus albicilla*). I think there is nothing that gives more pleasure than to look on a species that one has often read about, but has never seen alive in the wild state. I had this pleasure a few times this year, but what must it be to discover a species new to science! The Great Black-backed Gulls also come to Canna, and Mr. Thom, the owner of the island, tells me they sometimes attack the lambs, pecking out their eyes, and gouging into the brain. One he knew, which was kept in captivity, swallowed three Starlings, feathers and all, one after the other. I saw a pair of Peregrines in 1900, and I hear they still live unmolested in one of the cliffs.

One day I was talking to our skipper about Gannets (*Sula bassana*). He told me that one year, off the Isle of Man, he caught them in herring-nets twelve fathoms down—seventy-two feet is a big dive for a bird—and at Loch Strivin he has often obtained Guillemots (*Uria troile*) in the cod-nets thirty fathoms down.

I hope my few notes may be of some interest to ornithologists who intend spending their holidays in what I think is the most beautiful part of the British Isles.

NOTES ON THE LESSER WHITE-BACKED MAGPIE
(*GYMNORHINA HYPERLEUCA*) IN TASMANIA.

BY FRANK M. LITTLER, M.A.O.U.

To the majority of people in Tasmania this bird is simply known under the name of "Magpie." In the districts it frequents it is the best known of birds after the ubiquitous House Sparrow (*Passer domesticus*). It is restricted to certain parts of the island; on the colder and wetter parts of the west coast it is a complete stranger; some efforts, however, have been made to introduce the bird there.

Our Magpie is peculiar to Tasmania, not even being found on any of the islands in Bass Strait. On the mainland of Australia its nearest relation is the Black-backed Magpie (*Gymnorhina tibicen*), which has a fairly extensive range, and is the larger bird of the two. There is some slight difference in the colouring of the sexes. In the male the whole of the under surface, head, and cheeks are a beautiful glossy black; the rest of the plumage is white; bill, horn-colour; legs and feet black.

The male bird is a really handsome fellow in the nesting season. He is often to be seen perched on a rail with beak up-lifted and chest swelled to the fullest, pouring forth his joyous and melodious song to his mate, who is busy hunting for grubs on the ground close by. How bright and intelligent his eyes are, full of worldly wisdom and cunning, well suited to help their possessor on life's rough path. To the casual observer the most conspicuous difference in the plumage of the female is that the under surface is more of a grey than a black, and the upper surface is very dingy compared with that of the male.

The nest is open and bowl-shaped; sticks and twigs and some strips of eucalypt bark constitute the main items in its composition; the inside lining consists principally of grass stems and shredded bark. The situation usually chosen is in the forked branches of an eucalypt, generally some distance from the ground.

Although the same nest is not occupied during successive years, the same tree is resorted to season after season. Furthermore, a keen observer has given me as his opinion, that should one of a pair nesting in a tree to which they had become attached be killed between nesting seasons, the survivor brings along another mate to the old nesting tree. In exposed positions it is not often that such a frail nest, as it really is, holds together from one season to another. All Magpies have not built their homes of such prosaic materials as twigs and bark. Occasionally some daring spirit is to be found who, ignoring "Mrs. Grundy," has launched out on a plan of its own, much to the scandal of its everything-by-rule-of-thumb neighbours. In well-tilled districts wood becomes very scarce, only isolated giant gums being left here and there. Magpies were in a quandary, not enough suitable building material being easily available for house building, and the problem was thus solved:—The first reapers and binders introduced into Tasmania were the "Walter A. Wood," binding with wire. When the stacks were thrashed the wire on each sheaf was cut and thrown in a heap. With this unpromising material some of the Magpies, in the Longford district more particularly, built their nests. String binders superseded wire, and the Magpies that used wire had to go back to the traditions of their forefathers and employ sticks.

Three and sometimes four eggs are laid. In shape they are oval; the ground colour is light greenish, spotted and blotched all over with amber. Dimensions are about $1\frac{1}{2}$ in. by 1 in. To Tasmania belongs the privilege of being the first State to recognize the Magpie as being of economic value, and to extend protection to it as such. In 1879, under the Game Protection Act, 42 Vic., No. 24, it was decreed that whosoever killed the birds or destroyed their eggs would be liable to a penalty not exceeding £1. In 1885, this Act was extended under 48 Vic., No. 35, so that persons could not buy, sell, or offer for sale birds of this species. Notwithstanding that this Act is still in force, large numbers of young birds are taken annually from their nests and sold as pets to dwellers in the towns.

Some time since, while on a visit to a district in the northern part of the island, I was struck by the total absence of the Magpie. On asking if there was any known reason for it, I was

informed that the farmers had destroyed them all, as they considered that they (the birds) pulled up the wheat when in the "milk." I endeavoured to point out what a grave mistake had been made. It was another instance of too hasty conclusions being arrived at through faulty observation. The birds were merely searching among the sprouting grain for their favourite food of grubs and worms. A lamentable number of Magpies are destroyed every year through the careless and indiscriminate laying of poison for rabbits and sparrows. There is a certain number of agriculturists who cannot, and will not, see any good in birds, and consider that even the total annihilation of their feathered friends would have no effect on the many "pests" with which they are plagued. Not long ago a large landowner, who does not poison, picked up no fewer than 200 dead Magpies, besides other birds, that had been poisoned by his neighbours.

The food is almost entirely insectivorous; in the winter seeds and any stray grain are added to the *menu*. The larvæ of the Hepialid moth *Oncopera intricata* form its favourite diet, and about sunrise is the chief feeding time. It is very entertaining to watch a Magpie hunting for grubs; it goes about the work in such a business-like manner.

Let us watch one at work. It soon stops short and puts its head on one side, as if saying, "Now I have got you." An instant later the beak is darted down with lightning rapidity and a grub pulled out. It must not be imagined that the grubs are lying full length out of their burrows; their heads only are visible just below the surface of the ground, but quite enough for the sharp-eyed Magpie. When not engaged in seeking food, most of its time is passed among the branches of lofty trees. It moves in small flocks of from six to a dozen individuals, although occasionally far larger flocks may be seen. The largest flock I have seen recently round Launceston consisted of forty-seven birds. Round Conara (the native name for the Magpie), and other midland districts, even larger flocks may be seen.

The Magpie is of a somewhat pugnacious disposition, being always quite willing to cross swords with one of its own species or any other bird, or, if tame, does not scruple to try conclusions with a cat or dog. Hawks are its pet aversion, not an opportunity being lost to harass every one that comes near. On one

occasion a Sparrow-Hawk (*Accipiter cirrhocephalus*) was too clever for its tormentors. Some half dozen Magpies were chasing a Hawk away from a tree which contained a nest and young birds, when suddenly the Hawk doubled and, darting straight for the tree, plucked a young bird from out the nest and sailed triumphantly away. Near a certain farm in the country stands a giant eucalypt, in which a pair of Magpies nest year after year. When there are young in the nest the old birds are very savage, darting down with angry cries on every one passing under the tree.

A Magpie makes a most entertaining and useful pet, though after a time it becomes very mischievous, and delights in pulling up freshly-set plants. I have known one, after watching, say, turnips or onions being thinned out, to go on with the thinning until not a plant remained.

Another bird used to watch the operation of setting young plants very intently, and as soon as one's back was turned commence pulling them all up. As a counterpoise against these bad traits, there is the good one of being a very useful destroyer of insects of all kinds. This bird is one of our best songsters, its voice being very powerful and pleasing. Early on a summer's morning nothing is more delightful than to hear a number of Magpies pouring forth their melodious song while swaying on the top-most twigs of some lofty tree. Morning and evening are the times when most singing is done. It is no uncommon thing to hear them burst into song in the middle of some bright moonlight night, and after having successfully routed a Hawk is another occasion for a triumphal song. The wing-power of this species is very great; it can dash through space with a marvellous rapidity. Long distances (comparatively speaking) are traversed without a perceptible movement of the outstretched wings.

Launceston, Tasmania.

NOTES AND QUERIES.

MAMMALIA.

Some Habits of South African Hares.—It seems to me that the habits of South African examples of the *Leporidae* are little known. Although I do not know any special facts *re* the breeding habits of the South African Hares, a few notes derived from my sporting experiences may be welcome.

With regard to *Lepus capensis* (the common "Vlakhaas," *i. e.* Flats' Hare), Mr. W. L. Sclater, in his very valuable 'Handbook on South African Mammals,' says:—"This Hare frequents uncultivated land and flats covered with scattered bush; it may often be seen at early dawn and in the evening feeding on the grassy spots along the roads. When pursued it will take refuge in the ground, if it is able to do so, though it does not form a burrow of its own"; . . . remarks with which I concur. In addition to these localities, I have seen and shot this Hare among the thick eucalyptus and fir-plantations on the Rand.* When chased by Dogs they make off at first with the ears erect, giving curious little skips and hops; but as soon as they feel that the chase is going to be a serious one, they lay the ears flat along the sides of the head and neck, and run steadily; they dodge and double splendidly, and through this, coupled with their speed, afford good sport. The running powers of the Hare is often underrated; my own experience is that they afford good sport, although no doubt their speed is not on a par with that of European Hares, and even here varies individually, as with Horses and other animals. I have had runs of a distance varying from half a mile to three miles and more with a pack of four pure bred greyhounds and several half-bred animals. Times without number I have lost the quarry through its taking to the earth in an Ant-bear ("Aard-vark") or Meerkat hole. This Hare makes delicious eating, notwithstanding the statement so often made that it is a foul feeder. This it may be at times, but I have not seen it yet myself.

* Was common at and near Pretoria before the war, and generally to be found at the back of the town, in a small stretch of thorn and other trees near the then Boer Artillery Camp. It was there I shot my last Hare in the Transvaal.—Ed.

This species usually sleeps in holes or lairs in grass-tufts on the veld. Their usual feeding-time is early morning and in the evening.

Lepus saxitilis (vernacular name, "Kol-haas"; literally, "Spot-hare").—The running powers of this Hare are considerably greater than those of the preceding species. I have generally found them among scrub, rocks, and stones on koppies, and in plantations. They go out into the flats to feed, but are never found very far from bush or koppies (*i. e.* cover of some sort), according to my coursing experiences. You will very often see them of an evening skipping about the paths and feeding along roadways, or just outside plantations. Their forms are usually under scrubby bushes, or underneath overhanging stones or rocks. These Hares are very common in the eucalyptus plantations of the Witwatersrand, and form the chief bag of a day's drive.

Lepus crassicaudatus ("Rooi-haas").—This Hare is a denizen of rocky declivities and krantzes on koppies. I have seen a few on Botha's Berg, near Brandford, Orange River Colony, and a couple along the ridge near "Orange Grove," Johannesburg; also at the Klip-riversberg. They are shy and retiring, and consequently I have had no chance of making any sporting acquaintance with them. Their bushy and reddish tails are quite enough to distinguish them from the two foregoing species.—ALWIN C. HAAGNER (Johannesburg).

AVES.

Lesser Grey Shrike in Norfolk. — While Partridge driving at Docking, in Norfolk, on Oct. 11th of this year, I shot a Grey Shrike, which turned out to be the Lesser Grey Shrike (*Lanius minor*). The bird is evidently a young one, as it has traces of buff tips to the wing-coverts, where the edges are not worn away. I was unable to set it, as it was very high when I skinned it, and was rather heavily shot internally with No. 5. There is no trace of rose colour on the breast, but the sides of upper part of breast are inclined to a pale buff colour, with faint barred markings; no black on forehead, but a broad black streak on cheek and ear-coverts; scapulars grey, with no approach to white; outside tail-feathers white, even to the shafts; first primary very short, not equalling in length the primary coverts. I exhibited this bird at the last meeting of the British Ornithologists' Club.—G. E. LODGE (5, Thurloe Studios, Thurloe Square, S.W.).

Red-backed Shrike in Anglesea.—On June 19th I saw a pair of this species (*Lanius collurio*), and found the nest with newly-hatched young in a thick bramble-clump a little inland near Carmel Head. Though the locality where these birds had taken up their abode was a

likely one, yet the general character of this part of the island is very bleak, bare, and treeless, and unsuited to the habits of this bird. I again came across a male of this species on June 24th near Point Lynus. I am of course open to correction, but, so far as I can gather, there is no previous record of this bird in Anglesea. Last year I also met with a pair and young near Edeyrn, in Lleyn. — S. G. CUMMINGS (King's Buildings, Chester).

Migration of Jays.—It seems to be an established fact that *Garrulus glandarius* does migrate occasionally, if not regularly. It is possible that our home-bred birds are augmented in numbers every autumn by arrivals from the Continent, but sometimes to a much greater extent than at others. Some twenty years ago (Zool. 1883) a marked migration was recorded from various localities—from Heligoland westward to our east coast, and thence inland as far as Hampshire and East Dorset, and possibly much farther west—but I have no personal records of their journey. It is interesting to state that since the beginning of October there has been an unusual number of the birds both in the forest and in the woods to the west of the Avon, far more than were bred in either locality, and of course the "gamekeeper's museum" has been enriched in consequence, one brave fellow boasting that he had killed more Jays in one day (about the middle of October) than he had seen for a couple of years previously. It must be understood that a relentless war has been waged for years past against this beautiful but noisy species, and that in this locality it is much scarcer than it was formerly; but during the past few weeks many people not generally interested in birds have informed me of seeing Jays in most of the woods. It is well known what an omnivorous appetite these birds have, and very little is rejected—young birds or eggs, insects in either stage, fruit, oak-galls, and grain, are all alike devoured; but in my younger days there was an oak-wood in this neighbourhood where I could always find Jays, and where their nests were not uncommon, and it always seemed to me they were fonder of acorns, when they were to be had, than of any other food; but any "hard and fast" rule with regard to the food of birds may be easily broken, as the following fact will prove. We are all well aware how much a Peregrine Falcon prefers a Wood-Pigeon to most other forest birds, and what an exhibition of wing-power is displayed in the dash of pursuer and pursued; but since the Jays first began to appear, a Falcon—or rather two Falcons—were reported to be preying upon them, not because Wood-Pigeons were scarce; and, on making further enquiries, I find the report correct. As a proof, a gamekeeper had seen a Falcon strike down a Jay; he

baited a trap with the quarry, and the next morning the Hawk was found in the trap. It was one of the finest female Peregrine Falcons that I have seen.—G. B. CORBIN (Ringwood).

Hoopoe near Wick.—An adult male Hoopoe (*Upupa epops*) was shot on the moor near Wick last August, and is now in my collection. GEO. DICKINSON (23, Abercromby Square, Liverpool).

The Long-eared Owl (*Asio otus*).—Has it been observed that this handsome species of Owl was commoner than usual during the past summer? In the valley of the Avon it seems to have bred in some numbers, as I saw them in all stages of growth, and especially in the latter half of June and through July, when the majority were almost fully feathered, but the "horns" not entirely developed. In this stage the thing that struck me most was the beautifully varied tints of plumage, especially about the facial disk; no two seemed exactly alike, and one presented a particularly grotesque appearance—around the eyes and underneath the beak was almost entirely black, whilst the margins of the disk seemed whiter than usual, which "threw up" the inky black tips in a remarkable manner. A large number of these Owls must have been killed, as the gamekeeping community aver they come to the coops and carry off their young birds, and no amount of reasoning will convince them that mice and their kin more than young Pheasants are sought after by the Owls. The coops are usually closed when the soft-plumaged, silent Owl is on the wing, and the marauding rodents, in their nocturnal rambles, come for the scattered grain or other food, or even to purloin a chick; but because the Owl is seen in the vicinity he is ruthlessly slaughtered, when in fact he is more guardian than culprit.—G. B. CORBIN (Ringwood).

Plumage of Montagu's Harrier.—I should be greatly obliged if anyone having a *sexed* example of the *young female* Montagu's Harrier (*Circus cineraceus*) would tell me if it is marked on the under parts with longitudinal markings or streaks. Yarrell says that young females have the under parts unmarked (like young males); but it seems to me curious that the young birds should be unmarked on the under parts in all cases while the adults are strongly (and heavily in some cases) marked. The tendency in birds of prey is for markings on the under parts to become small, or to disappear, with increasing age of the individual. In the volume for 1901 (p. 476) I recorded the occurrence of a young Montagu's Harrier (not sexed, but believed by me to be a female) in Northamptonshire. In identifying this specimen as Montagu's Harrier, I relied on the shape of the fifth primary (*vide* Mr. Howard

Saunders's 'Manual'), although (as the bird is stuffed) the wings look very short for this species. This example has the under parts well marked with longitudinal streaks, and it has been suggested to me that for this reason it cannot be Montagu's Harrier, and that I identified it wrongly. I should be very glad to hear from anyone who has sexed examples of young Montagu's Harriers.—O. V. APLIN (Bloxham, Oxon).

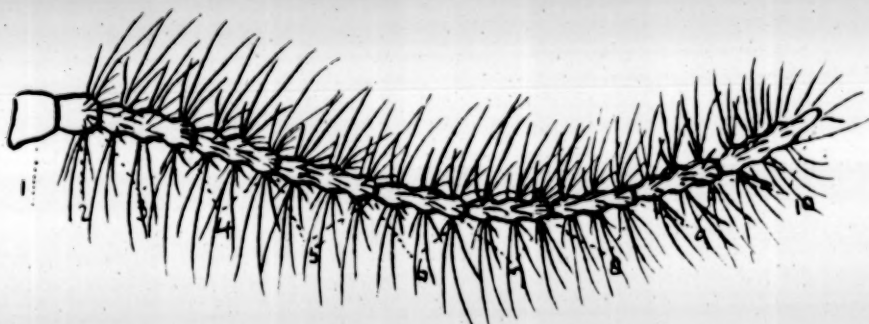
Moorhens feeding Young.—On July 13th I watched a pair of Moorhens (*Gallinula chloropus*) swimming about in a small pond with their brood of six newly-hatched young ones—tiny balls of black fluff with red bills. Both the old birds were feeding the youngsters with insects taken from the surface of the water, and, as far as I could see, with small pieces of water-weed; also on one occasion with a morsel off a lump of bread which was floating on the water. Swimming in the same pond were three full-grown young birds of the year (in the grey-brown plumage, with green bill and legs), presumably the first brood of the old pair, and I was interested to observe that these fed the newly-hatched young ones with as great assiduity as did the old birds, and that the young ones followed them about quite as much as they did their parents. I see that this habit, which was new to me, is not unknown, for Mr. Howard Saunders, in his 'Manual' (p. 518), says:—"Two, if not three, broods are produced in the season, the young from the first nest assisting their parents in building another, and even in taking care of the second brood." The method of feeding struck me as peculiar. The old bird, on catching an insect, swam up, and presented it to the youngster, who picked it out of his (or her) bill. Never once did the old bird place it in the young one's mouth, as is usually the case in birds which feed their young, nor the young one open its bill to receive it.—BERNARD B. RIVIERE ("Flaxley," 82, Finchley Road, N.W.).

Ornithological Incidents at Petersfield.—Noteworthy incidents have been singularly scarce in this locality during the present year. I have only to record an instance of two Cuckoo's eggs in the nest of a Hedge-Sparrow containing two eggs of the rightful owner. This occurred early in June in a hedge by the roadside near Theale, Berkshire. A little later in the month two more Cuckoo's eggs were found in a Hedge-Sparrow's nest, close to the site of the first nest.—H. MARMADUKE LANGDALE (The Vicarage, Compton, Petersfield).

INSECTA.

Morphological Interpretation.—Dear Mr. Distant,—In the introduction to your first volume on the 'Rhynchota of British India' (p. xxx) you say:—"In some Reduviids the antennæ are apparently

8-jointed, the maximum number of about twenty-five being attained in the males of some *Coccidæ*." I have seen this statement repeated in various entomological works, but I believe it to be quite erroneous, and founded upon the fact that in many male *Monophlebids* the joints are 3-nodose, each node giving rise to a prominent whorl of hairs. Ten is the normal number of joints in the males of the *Coccidæ*. I know of no species in which this number is exceeded. I give a sketch below of the antenna of a male *Monophlebus*, which will show you how the misconception has arisen. — E. ERNEST GREEN (Royal Botanic Garden, Peradeniya, Ceylon).



[Mr. Green appears to be quite correct in his contention on this point, as may be seen from the above figure, and from microscopical examination made since the receipt of his letter. I had unquestionably followed the opinions of very high authorities. Latreille ('Le Règne Animal,' tome v. p. 232 (1829)), who appears to have been the first to give a diagnosis of the genus, which he writes "*Monophleba*," refers to a species from Java, "remarquable par ses antennes, composées d'environ vingt-deux articles." Burmeister ('Handbuch der Entomologie,' ii. p. 80 (1835)) describes the males of *Monophlebus* as having up to twenty-five joints. Westwood, who paid much attention to the genus ('Vigors' Zool. Journ.' v. p. 452 (1835)), describes the antennæ of the male of one species as "26 articulatae." Recently Dr. Sharp ('Cambridge Nat. Hist.' vol. vi. p. 539 (1899)) has described the maximum number of antennal joints in some males as about twenty-five. The issue rests on the method of morphological interpretation, and Mr. Green has done a very useful service.—ED.]

A Remarkable West African Leaf-Gall.—The gall illustrated in the accompanying photograph is very noticeable, owing to its resemblance to an inflorescence. It is common enough in this locality, and I have met with more than a dozen specimens of it. It is always found on the same plant (apparently a species of *Ficus*), and I have only seen

one specimen of the plant not infested by the gall-fly. The part attacked seems to be always the base of the leaf, or possibly an unopened leaf-bud. The gall-capsules at first are pale yellowish green, with irregular reddish staining. As they mature they become dark green, and are aggregated together into a dense mass, through which the leaves continue to grow, but in a stunted and irregular manner ;



in some instances abortive leaves or bracts occur between the individual capsules. When the capsules are mature they burst and expand like the corolla of a flower, eventually showing a bright apricot-coloured interior of velvety texture, and the whole has quite the appearance of a brilliant inflorescence. The colour of the interior of the capsules deepens from primrose-yellow, on first opening, through nankeen-yellow, to a deep apricot, and then fades to brown and black as the mass withers. The mature capsules seem usually to contain one insect and one cast skin each, but sometimes two capsules coalesce internally before bursting, and in one such combined capsule I found two insects and three cast skins. — W. HENRY HILLYER (Princisu, Wassau District, Gold Coast Colony, West Africa. Lat. $5^{\circ}54'57''$ N.; long. $2^{\circ}6'40''$ W.).

[This insect was described by Walker in 1851, from specimens received from Sierra Leone, under the name of *Psylla? lata*. The genus in which it should be placed is certainly not *Psylla*, but that question need not be discussed here. Réaumur, in 1787 ('Mémoires,' t. iii. mém. x. pl. xxix. figs. 17–24), has detailed the history of a species (*Anisotropha ficus*) which lives on the fig. Recently Mr. C. P. Lounsbury, the Government Entomologist of Cape Colony, has described the ravages of the Citrus Psylla (*Trioza* sp.), which attacks any kind

of citrus trees, and causes a great distortion of foliage (Cape of Good Hope, Department of Agriculture, Reprint No. 21, 1898).—ED.]

“Making the best of Difficulties.”—With regard to the communication on this subject (*ante*, p. 392), my own experience may be of interest. I have had many larvæ of *Dieranura vinula* at various times, and have always found that they can be persuaded to manufacture their cocoons out of any material which is given to them, in default of the natural supply. If one of these larvæ be put in a tin, with pieces of coloured paper, a very pretty result may be obtained. I have in my possession cocoons composed of pink paper, another of blue and white, and a third of bright yellow. I have also a very singular cocoon which is made entirely of white muslin and brown elastic, although this specimen was quite unintentional as far as I was concerned. The larva was enclosed in a glass jam-jar, over the top of which I had placed a piece of muslin, with an elastic band round it, to prevent the larva from making its escape. The captive was ready to spin before I was aware of the fact, and, finding nothing in the bottle but leaves, endeavoured to escape by biting a hole through the muslin. Even then the caterpillar found that it could not get away, as the overhanging edges of the muslin did not reach near enough to the ground to enable it to climb down, and apparently it did not like to risk a drop. Doubtless it wandered round and round the edge of the muslin many hundreds of times before it finally decided to make the best of a bad job, and compose its cocoon of muslin and elastic. A friend of mine had another caterpillar which made its escape, and, after wandering round the room disconsolately, set to work, and composed its cocoon out of his best table-cloth! — H. W. SHEPHEARD-WALWYN (Dalwhinnie, Kenley).

SEXUAL SELECTION.

IN his interesting paper on the “Colouring of *Stercorarius crepidatus*,” Mr. Edmund Selous gives it as his opinion that the gradations of plumage in this species are due to sexual selection. He finds no evidence in favour of natural selection in the case before him, and consequently he sets aside all probability of that agency. “Without evidence,” he writes, “such a view is a mere supposition, and therefore not worth while considering. The main facts suggest choice in a certain direction.”

It is the plain statement of personally observed facts which has made Mr. Selous' papers in ‘The Zoologist’ so valuable; but what facts

does he bring forward as evidence of the influence of sexual selection on these birds? He gives a detailed account of the links which connect the extreme dark and the extreme pale colouring, and from this he concludes that sexual selection must have been at work. But is not this "mere supposition"? for the ascertained facts are too meagre to favour either natural or sexual selection. Does not Mr. Selous advocate the latter because at the outset he was "a believer in the reality of that power"?

It is to be hoped that Mr. Selous will write a paper on sexual selection, giving in support of that theory examples of actual choice in sexual matters as observed by himself in wild nature.

May I point out a slight slip in his choice of words? Would it not be preferable to speak of this species as *polymorphic* rather than *multi-morphous*?—W. STORRS FOX (St. Anselm's, Bakewell).

BIBLIOGRAPHY.

I HAVE in preparation a catalogue of the vertebrate animals of Oxfordshire, and should be grateful for any information relating to the occurrence in the county of the following species:—Harvest Mouse, Dormouse, Black Rat, Lesser Shrew, Bank-Vole, Polecat (recent occurrences), Viper, Lizard, Sand-Lizard, Palmate Newt, Natterjack Toad, Crucian Carp, Rudd, Bream, White Bream, Grayling, Barbel.—O. V. APLIN (Bloxham, Oxon).



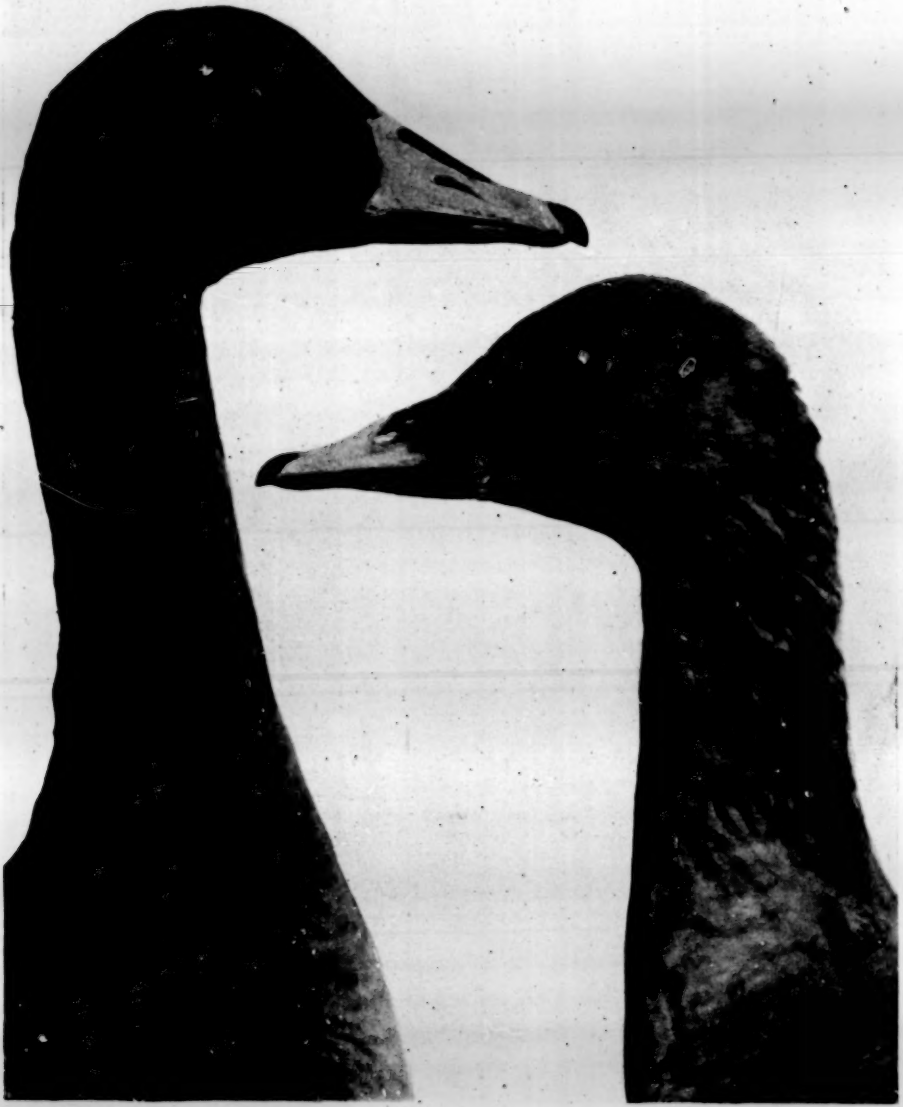
on
ch
m
is
re
as
ne

al
ce

ot
i-

of
e
e,
l,
y.





Anser paludosus, Strickl.

Anser segetum, Gmel.